Text: Advanced Engineering Mathematics, Kreysig 9th ed.

Chapter 7: Linear systems

1	7.1,7.2	p 277: 3,5,6; p 286: 4,5,11,27
2	7.3	p 295: 7,11,19
3	7.4	p 301: 6,7,15,22,24,25,33,36
4	7.5,7.6	p 301: 1, 4, 5. Also find the null space and nullity for each matrix.
5	7.7,7.8	p 314: 7,13,17,18; p 322: 3,7,23
6	7.9	p 329: 1,3,4,9,17,27

Chapter 8: Eigenvalue problems

7	8.1	p 338: 5,11,23,30
8	8.3,8.5	p 348: 11,12,13; p 361: 3,5,9,10 (spectrum 334)
9	8.4	p 355: 2,3,13,29,30

Chapter 4: Systems of ODEs

10	4.1,4.2	p 135: 5,7,12
11	4.3	p 146: 3,13,18
12	4.4	p 150: 3,5,7,11
13	4.5	p 158: 1,5,9
14	4.6	p 162: 3,11
15	Review	
16	Exam 1 – Chs 7, 8, 4	

Chapter 6: Laplace Transforms

17	6.1	p 226: 1,9,10,12,19,23,30,39
18	6.2	p 232: 1,3,9,18,31
19	6.3	p 240: 5,8,16,21,27,45
20	6.4	p 247: 1,7,16ab
21	6.5	p 253: 3,11,19
22	6.6	p 257: 1,5,8,15
23	6.7,12.11	p 262: 3,17; p.597(top): 5

Chapter 5: Series solutions of ODEs

24	5.7	p 209: 5,7,17
25	5.8	p 216: 1,3,5 (Use p. 180 for each)

Chapter 11: Fourier series, integrals and transforms

26	11.1	p 485: 13,14,21
27	11.2	p 490: 3,17,18
28	11.3	p 496: 11,14,20
29	11.4	p 499: 2,3,9,10
30	11.5,11.6	p 501: 3,7; p 505: 5,13,14,15
31	11.7	p 512: 1,11,15
32	11.8	p 517: 1,2,5,7
33	11.9	p 528: 2,3,7
34		Review
35		Exam 2 – Chs 6, 5, 11

Chapter 12: Partial differential equations

36	12.1,12.2	p 537: 4,7,14,19
37	12.3	p 546: 9 (Do only by Fourier series and do not sketch.),15 (There are more solutions than those given.), 16
38	12.4	p 552: 5 (separation of variables) ,9 (Use (17) p. 544 and give 4 graphs.)
39	12.5	p 560: 7,11,13
40	12.5,12.9	p 560: 28,31 p 585: 6abc
41	12.6	p 568: 1,2,3,7
42	12.7,12.8	p 578: 3,5,7,18
43	12.10	p 593: 9,10
44		Review